L 59621-65

ACCESSION NR: AP5012466

6

'The author thanks M. S. Rabinovich, and I. S. Shpigel', for valuable advice and a useful discussion of the results, V. F. Pis'menko and Ye. N. Sobolev for help with the research, and N. V. Perov together with the group of mechanics headed by V. P. Solov'yev for help in constructing the experimental setup.' Original article has: 7 figures and 1 formula

ASSOCIATION: None

SUBMITTED: 22Apr64 ENCL: 00 SUB CODE: ME

NR REF SOV: 006 OTHER: 001

Card 3/3

plasma sources were electrode injectors with discharge over an organic-glass surface. The vacuum chamber was a glass tube 12 cm in diameter and 220 cm long, evacuated to 5×10^{-6} -- 10^{-5} mm Hg. Several measurement procedures were used to investigate the injection. The main investigation of the plasma configuration leaving the magnetic trap was with the aid of a luminescent probe. The results show that a stable plasma pitch could be produced when the compensating field was equal in amplitude to the longitudinal field (within 5 -- 10 per cent), and the delay between the instant of injection and the start of the growth of the magnetic field was 3 -- 6 μsec. The plasma density obtained thereby was $\sim 10^{12}$ cm^{-3}. The plasma trapped in the magnetic field propagated along the force lines with practically no losses. The plasma diagnostic techniques are described in detail. A plasma pinch 5 -- 6 cm in diameter, insulated from the walls of the vacuum chamber and lasting 80 μsec, was obtained. The maximum plasma density at H= 2 -- 2.5 kOe was 3×10^{12} cm^{-3}. This constitutes some 20 -- 50 percent of the injected particles. The mechanism of capture of the plasma is described qualitatively.

ACCESSION NR: AT4025317 S/0000/63/000/000/0263/0269

AUTHORS: Batanov, G. M.; Ivanovskiy, M. A.; Fedyanin, O. I.; Shpigel', I. S.

TITLE: Use of a luminescent probe to record a moving plasma

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 263-269

TOPIC TAGS: plasma, plasma diagnostics, luminescent probe, plasmascope, moving plasma configuration, plasma electron image, plasma ion image, plasma configuration

ABSTRACT: The luminescent probe ("plasmoscope") method developed by L. I. Yelizarov and A. V. Zharinov and reported by them at the Nuclear Fusion Conference in Salzburg (4--9 September 1961) is used to study the transverse motion of a plasma jet in a magnetic field in the presence of translational velocity perpendicular to the sur-

Card 1/4

ACCESSION NR: AT4025317

face of the screen. The results are compared with data obtained by local density measurements. The characteristics of the apparatus and of the plasma are described. It is concluded that at a plasma density $\sim 10^{11}$ cm^{-3} and a translational beam velocity $\sim 10^{7}$ cm/sec the luminescent probe yields correct information on the plasma configuration in a longitudinal magnetic field. Reflection of the plasma from the screen surface does not distort the results, and there is no luminor persistence. The density of the measured plasma is not confined to the condition that the grid cell dimension be smaller than the Debye radius. To obtain a sharp image it is merely necessary that the pulse on the grid be of sufficient magnitude. If the screen is not illuminated by the plasma radiation, it is possible to obtain an ion image without using electron secondary emission. Orig. art. has: 6 figures.

ASSOCIATION: None

Card 2/4 2

ACC NR: AP6036032 SOURCE CODE: UR/0057/66/036/011/1990/1994

AUTHOR: Zykov,V.M.; Fedyanin, O.I.

ORG: Physics Institute im. P.N.Lebedev, Moscow (Fizicheskiy institut im. P.N. Lebedeva)

TITLE: An electrical method for cutting off a plasma stream

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 11, 1966, 1990-1994

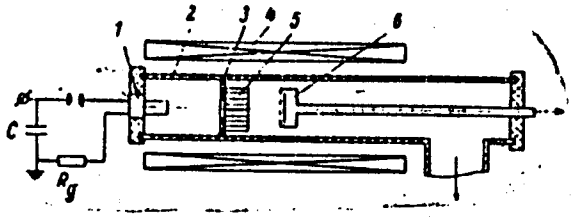
TOPIC TAGS: moving plasma, plasma control, electric field, magnetic field, valve

ABSTRACT: The authors have employed the apparatus diagrammed in the figure to test the operation of an electrostatic plasma gate consisting of a number of 0.12 mm thick 20 mm long stainless steel plates mounted parallel on a 2 mm spacing with alternate plates oppositely charged. The gate is intended for use in a plasma purification system. In the figure, 1 is a spark plasma source of the type described by W.H. Bostick (Phys. Rev., 106, 1957), which produced plasmas with densities up 10^{12} cm^{-3}; 2 is a 12 cm diameter glass vacuum chamber; 3 is a diaphragm mounted 20 cm from the plasma source and having a 3 cm diameter opening; 4 is a solenoid producing a quasi-steady magnetic field of up to 3 kOe; 5 is the gate under test; and 6 is a 4 cm diameter shielded electric probe for measuring the plasma passing through the gate. When no voltage was applied to the gate its transparency increased with increasing

Card 1/2

UDC: 533.9

ACC NR: AP6036032



strength of the longitudinal magnetic field; in a 2 kOe field the transparency of the gate was 0.85, which is close to the geometric value. When a potential of 100 V was applied to the gate its transparency to a plasma with a maximum density of 10^{11} cm^{-3} was 0.04, and at a potential of 200 V its transparency to a 10^{12} cm^{-3} plasma was 0.01. The gate was also tested with 100 V square pulses, and it was found to be possible to cut off a selected portion of the plasma burst. It is suggested that the operation of the gate involves separation of the plasma into electron and ion components in the strong electric field. A correct theoretical discussion of the results will require a rigorous treatment of the diffusion of plasma in crossed fields. The authors thank I.S.Shpigel for valuable discussions, and Yu.V.Khol'nov and P.V.Perov for assistance with the experiments. Orig. art. has: 2 formulas and 6 figures.

SUB CODE: 20 SUBM DATE: 06Nov65 ORIG.REF: 007 OTH REF: 002

Card 2/2

L 10407-67 EWT(1) IJP(c) AT
ACC NR: AT6033031 SOURCE CODE: UR/2504/6..)32/000/0007/0019

AUTHOR: Batanov, G. M.; Grebenshchikov, S. Ye.; Ivanovskiy, M. A.; Sbitnikova, I. S.; Fedyanin, O. I.; Shpigel', I. S.

ORG: none

TITLE: Injection of a plasma into a closed magnetic trap with a two phase helical field

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 32, 1966. Fizika plazmy (Plasma physics), 7-19

TOPIC TAGS: plasma injection, magnetic trap, helical magnetic field

ABSTRACT: A plasma injected into a closed magnetic trap must have the following properties: 1) it must be sufficiently homogeneous in composition (hydrogen or deuterium), it must contain a minimum number of impurities, and the percent ionization must be close to 100; 2) its temperature must be high enough to exclude loses due to normal diffusion in the magnetic field; 3) it must have a high conductivity to eliminate polarization due to the toroidal effect; 4) the plasma, filling the toroidal trap, must not contain marked longitudinal electric fields. The article presents the results of an investigation of several methods of injection. The experiments were carried out in laboratory scale models. The first method tested was injection of the

Card 1/2

ACC NR: AT6033031

plasma into a "programmed" magnetic field; this method is based on the irreversible change in the configuration of the magnetic field into a determined region of a closed field. The behavior of a plasma was studied under rapid compression by an external azimuthal magnetic field. The method proposed in the article involves injection of the plasma along the tube of the lines of force of a magnetic field extracted from the volume of the trap. Particular attention is paid to the problem of the movement of a sufficiently dense plasma ($n \approx 10^{12}$-10^{13} cm^{-1}) in a curvilinear magnetic channel. The article concludes with a consideration of the collision of plasma flows in the transverse magnetic field of the trap. "In conclusion the authors consider it their duty to thank M. S. Rabinovich for his continuing interest in the progress of the work and for his helpful discussions of the experimental results and of the selection of the basic directions of the investigation. They also thank all their coworkers who took part in setting up the physical equipment and in carrying out the experiments: Ye. P. Aleksandrov, M. S. Bereshetskiy, N. M. Zverev, Yu. G. Krutikov, N. V. Perov, as well as all the workers of the workshop headed by V. P. Solov'yev." Orig. art. has: 13 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 015/ OTH REF: 007

Card 2/2 bmp

Fedyanin, V.K.

AUTHOR: Fedyanin, V.K. 56-5-39/46

TITLE: Radiation Correction in the Dispersion Relations for $\pi^{\pm} + p \to \pi^{\pm} + p$ (Radiatsionnyye popravki v dispersionnykh sootnosheniyakh dlya $\pi^{\pm} + p \to \pi^{\pm} + p$)

PERIODICAL: Zhurnal Eksperim. i Teoret.Fiziki, 1957, Vol. 33, Nr 5, pp. 1301-1303 (USSR)

ABSTRACT: The determination of the value f^2 from the dispersion relations for $\pi^{\pm} + p$(1) and $\pi^{-} + p$(2)-states for energies below the resonance proved to be (1) ≈ 0,08 and (2) ≈ 0,04. The same value of 0,08 for (1) and (2), according to Puppi and Stanghellini, (ref.1) was computed for energies above resonance.
Now the experiment has been undertaken theoretically to determine the difference between f^2 (1) and f^2 (2) by taking account successively of the functions for the entire system and the intermediate states in which the nucleon as well as the photon exists.
According to this computation the difference between f^2 (1) and f^2 (2) amounts to about 3% for the energy domain (1,5 - 2).μ.

Card 1/2

56-5-39/46

Radiation Correction in the Dispersion Relations for $\pi^{\pm} + p \rightarrow \pi^{\pm} + p$

There are 5 references, 1 of which is Slavic.

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: July 3, 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHORS: Tavkhelidze, A. N., Fedyanin, V. K. 2o-119-4-17/6o

TITLE: Approximated Equations for the Amplitude of the Scattering of Photons on Nucleons (Priblizhennyye uravneniya dlya amplitudy rasseyaniya fotonov na nuklonakh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 4, pp. 69o - 693 (USSR)

ABSTRACT: The study of the scattering of photons on nucleons is able to supply important clues as to the mesonic structure of the nucleon. The present work determines approximated equations for the physical amplitudes on the basis of the dispersion relations for Compton scattering. The first chapter deals with the kinematic examination of the amplitude. First, an expression is written down for the amplitude of the process resulting from relativistic invariance. From the conditions of relativistic invariance and gradient invariance it is possible to determine the number of independent structures and to find an explicit expression hereof. In a pseudoscalar meson field the number of independent structures is 1o. If the invariance of the amplitude with respect to reflection as regards time is taken into account, this number is reduced to 6. The authors here write

Card 1/3

down explicit expressions for these 6 independent structures. Next, some symmetry properties of the invariant functions are detected. In the second chapter dispersion relations for the relativictic amplitudes $\mathfrak{A}_i$ are derived. This is, however, only an intermediate stage, and in the next chapter the dispersion relations for the physical amplitudes are derived. In the last chapter the unitarity condition is derived. The dispersion relations derived here connect the Hermitian and the anti-Hermitian part of the amplitude of the reaction. The unitarity condition written down in single-meson approximation makes it possible to express the anti-Hermitian part of Compton scattering by the amplitudes of photoproduction. In conclusion, the authors thank N. N. Bogolyubov, Member, Academy of Sciences, USSR, and A. A. Logunov for their valuable discussions and for the constant interest they displayed in this work. There are 5 references, 3 of which are Soviet.

Approximated Equations for the Amplitude of the Scattering of Photons on Nucleons

2o-119-4-17/6o

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute of Nuclear Research)

PRESENTED: November 2o, 1957, by N. N. Bogolyubov, Member, Academy of Sciences, USSR

SUBMITTED: November 14, 1957

Card 3/3

FEDYANIN, V.K.

Dispersion relations for the Compton effect on nucleons. Dokl. AN SSSR 140 no.2:347-350 S '61. (MIRA 14:9)

1. Matematicheskiy institut im. V.A.Steklova AN SSSR. Predstavleno akademikom N.N.Bogolyubovym.
(Compton effect) (Photons)

FEDYANIN, V. K.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Mathematical Institute imeni V. A. Steklova 1962:

"Investigation of the Compton Effect for Nucleons Using Dispersion Ratios."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

FEDYANIN, V.K.[translator]; KHOZYAINOV, V.T. [translator]; MEDVEDEV, B.V., red.; SHIRKOV, D.V., red.; LIVSHITS, B.L., red.

[What do physicists think about] Nad chem dumaiut fiziki. Pod red. B.V.Medvedeva i D.V.Shirkova. Moskva, Fizmatgiz. No.1. [Nuclear physics] Fizika atomnogo iadra. 1962. 99 p. Tranlsated from the English. (MIRA 17:6)

S/056/62/042/004/020/037
B108/B102

24.6610

AUTHOR: Fedyanin, V. K.

TITLE: Compton effect on a proton in dipole approximation

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 4, 1962, 1038 - 1046

TEXT: On the basis of published data and formulas (M. Gell-Mann, M. L. Goldberger, W. E. Thirring. Phys. Rev., 95, 1612, 1954; R. H. Capps. Phys. Rev., 106, 1031, 1957; R. H. Capps. Phys. Rev., 108, 1032, 1957; F. E. Low. Phys. Rev., 96, 1428, 1954. M. Gell-Mann, M. L. Goldberger. Phys. Rev., 96, 1433, 1954) the author presents a more accurate formulation of the dipole "phase shift" approximation..Comparison of experimental and theoretical data from publications on the energy and angular dependences of the differential cross sections for energies up to 180 Mev as well as the threshold singularities and electric and magnetic "polarizabilities" of the proton shows good agreement in the approximation under consideration. There are 11 figures and 25 references: 9 Soviet, and 16 non-Soviet. The four most recent English-language references read as follows: G. L. Oxley.

Card 1/2

S/056/62/042/004/020/037
B108/B102

Compton effect on ...

Phys. Rev., 110, 733, 1958; L. G. Hyman et al. Phys. Rev. Lett., 3, 93, 1959; M. Jacob, J. Mathews. Phys. Rev., 117, 854, 1960; A. M. Baldin. Nucl. Phys., 18, 310, 1960.

JB

ASSOCIATION: Universitet druzhby narodov (University of the Friendship of the Nations)

SUBMITTED: July 1, 1961 (initially), December 16, 1961 (after revision)

Card 2/2

S/056/63/044/002/037/065
B108/B186

AUTHOR: Fedyanin, V. K.

TITLE: Application of the dispersion relations to the Compton effect on the proton

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 633-648

TEXT: The Compton effect on the proton is studied by means of the six dispersion relations for a fixed transfer of momentum as calculated in an earlier paper (DAN SSSR, 140, 347, 1961). The unitarity conditions in single-meson approximation (A.N. Tavkhelidze, V.K. Fedyanin. Preprint OIYaI 1757 P-125; DAN SSSR, 119, 690, 1958) allow the imaginary part of the amplitude to be expressed in terms of the coefficients in the angular distribution of production in the photoprocesses $\gamma + p \longrightarrow p + \pi^0$ (K. Berkelman, I. A. Waggoner. Phys. Rev., 117, 5, 1960) and $\gamma + p \rightarrow n + \pi^+$ (I.L. Vretsky et al. Phys. Rev. Lett., 12, 1958; M. Heinberg et al. Phys. Rev., 110, 1211, 1958). Employing the six exact (in e_0^2-approximation) dispersion relations makes it possible to take the "recoil" of the

Card 1/2

nucleon into consideration (terms in the dispersion integrals being linear with respect to the frequency). This improves the agreement with the experiments in the subthreshold region (ZhETF, 42, 1038, 1962), and also in the superthreshold region as carried out by other investigators (e.g. M. Jacob, I. Matthews. Phys. Rev., 117, 854, 1960). Furthermore, the data on the electric and magnetic polarizabilities of the proton can be improved. The characteristics (phase, angular distribution, etc.) for $\gamma + p \longrightarrow \gamma' + p'$ processes are calculated for energies of between 0 and about 800 Mev. The dispersion relations calculated in the previous paper mentioned above can be used for calculating the Compton effect on the neutron and deuteron. In particular it will be possible to estimate the polarizability of the neutron; for this, however, a preparatory study of the two photoprocesses $\gamma + n \longrightarrow n + \pi^0$ and $\gamma + n \longrightarrow p + \pi^-$ will be necessary. There are 12 figures and 4 tables.

ASSOCIATION: Universitet druzhby narodov ("Friendship between Nations" University)

SUBMITTED: August 6, 1962

Card 2/2

FEDYANIN, V.K.

Application of dispersion relations to the Compton effect on protons. Zhur. eksp. i teor. fiz. 44 no.2:633-648 F '63. (MIRA 16:7)

1. Universitet druzhby narodov.

FEDYANIN, V.K.

A problem in the theory of elasticity. Dokl. AN SSSR 164 no.6:1253-1255 O '65. (MIRA 18:10)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova AN SSSR, Moskva.

L 3763-66 EWT(d)/EWT(m)/EWP(w) IJP(c) EM

ACC NR: AP5027219 SOURCE CODE: UR/0020/65/164/006/1253/1255

AUTHOR: Fedyanin, V. K.

ORG: Physical-Chemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut)

TITLE: On one problem of the theory of elasticity

SOURCE: AN SSSR. Doklady, v. 164, no. 6, 1965, 1253-1255

TOPIC TAGS: stress concentration, stress distribution, mechanical stress, Laplace transform, elasticity, elasticity theory

ABSTRACT: A presentation on the solution of a certain type of problem from the theory of elasticity is given. The problem is to find a solution of the theory of elasticity equations for a half-space ($Z \geq 0$) which has, at some point located a distance h away from the boundary surface ($Z = 0$), the characteristic of a type of center (of compression or tension). Boundary conditions are

$$p_z(r, 0) = 0,$$

where p_z - the z - component of pressure as a function of (r,z) in cylindrical coordinates; the z = 0 plane corresponds to the boundary, and the z axis is directed downward and passes through the point (0,h). Component stress tensor boundary conditions are

$$\text{a) } \sigma_{rz}(r, 0) = 0, \quad \text{б) } \sigma_{zr}(r, 0) = 0.$$

Card 1/3

The solution is developed with the use of vectors of the form

$$u_z^0 = A_0\left(\frac{z-h}{R_1^3}+\frac{z+h}{R_2^3}\right),\quad u_r^0 = A_0 r\left(\frac{1}{R_1^3}+\frac{1}{R_2^3}\right),$$

where

$$R_1^2 = r^2+(z-h)^2;\quad R_2^2 = r^2+(z+h)^2.$$

and A_0 is a constant. Use is made of the solution of the elasticity equations for an infinite medium according to L. D. Landau and Ye. M. Lifshits (Mekhanika sploshnykh sred, 1954) and S. P. Timoshenko (Teoriya uprugosti, 1937). The problem is stated in a form amenable to solution by Laplace transformation. The desired variables are found to be

$$u_z = A_0\left[\frac{z-h}{R_1^3}-\left(\frac{z+h}{R_2^3}\frac{\lambda+3\mu}{\lambda+\mu}+\frac{4z}{R_2^3}-\frac{6zr^2}{R_2^5}\right)\right],$$

$$u_r = A_0 r\left[\frac{1}{R_1^3}+\frac{\lambda+3\mu}{\lambda+\mu}\frac{1}{R_2^3}-\frac{6z(z+h)}{R_2^5}\right],$$

$$\sigma_{zz} = 4\mu A_0\left\{-\frac{1}{R_1^3}\left(1-\frac{3}{2}\frac{r^2}{R_1^2}\right)+\frac{1}{R_2^3}\left(1-\frac{3}{2}\frac{r^2}{R_2^2}\right)+\frac{6z(z+h)}{R_2^5}\left(1-\frac{5}{2}\frac{r^2}{R_2^2}\right)\right\},$$

$$\sigma_{rr} = 2\mu A_0\left\{\frac{1}{R_1^3}\left(1-3\frac{r^2}{R_1^2}\right)+\frac{1}{R_2^3}\left(\frac{5\lambda+3\mu}{\lambda+\mu}-9\frac{r^2}{R_2^2}\right)-\frac{6z(z+h)}{R_2^5}\left(1-5\frac{r^2}{R_2^2}\right)\right\},$$

$$\sigma_{\theta\theta} = 2\mu A_0\left\{\frac{1}{R_1^3}+\frac{1}{R_2^3}\left(\frac{5\lambda+3\mu}{\lambda+\mu}-\frac{6\lambda}{\lambda+\mu}\frac{r^2}{R_2^2}\right)-\frac{6z(z+h)}{R_2^5}\right\},$$

$$\sigma_{rz} = -6\mu A_0\left\{\frac{r(z-h)}{R_1^5}+\frac{r(z+h)}{R_2^5}+\frac{2rz}{R_2^5}\left(1-\frac{5(z+h)^2}{R_2^2}\right)\right\},$$

Card 2/3

where λ and μ are Lamé elasticity constants. The results may be applied to problems on deep chemical adsorptions, the appearance of cracks in a material surface, etc. The author thanks M. I. Temkin who offered his assistance in supervising physical-mechanical applications of the results; additional thanks are extended to D. V. Anosov and to V. P. Korobeynikov for their critique of the results. This paper was presented by academician A. A. Dorodnitsyn on 23 March 1965. Orig. art. has: 14 equations.

SUB CODE: 20/ SUBM DATE: 18Mar65/ ORIG REF: 006

L 6525-66 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) WW/BC
ACC NR: AP5023112 SOURCE CODE: UR/0103/65/026/009/1524/1532

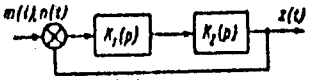
AUTHOR: Fedyanin, V. P. (Moscow)

ORG: none

TITLE: Calculation of a realizable transfer function of a closed-loop automatic-control system by means of the criterion of minimum mean-square error

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1965, 1524-1532

TOPIC TAGS: automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: Two stationary random signals -- desirable m(t) and noise n(t) defined by their correlation functions or spectral densities -- are applied to the input of this generalized automatic-control system:  The excess of the transfer function of the invariable part of the system $K_2(p)$ is q, and the desirable output function is h(t). From these premises, the transfer function $\Phi_{opt}(\Delta, p)$ of the above system is determined in such a way that it ensures a minimum mean-square error of the output signal, has a specified excess q, and has

Card 1/2 UDC: 62-501.1

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ACC NR: AP5023112

realizable coefficients; here Δ is the distance to the real axis of n roots of the denominator of $\Phi_{opt}(\Delta, j\omega)$. The problem is solved by imposing the above limitations on the transfer function expressed in the well-known N.Weiner terms ("Extrapolation, Interpolation and Smoothing of Stationary Time Series, Wiley, 1949). "In conclusion, the author wishes to thank Ya. Z. Tsypkin for his attention to this work." Orig. art. has: 2 figures and 48 formulas.

SUB CODE: DP, IE/ SUBM DATE: 12Nov64/ ORIG REF: 007/ OTH REF: 001

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Card 2/2

FEDYANIN, V.P. (Moskva)

Calculation of a realizable transfer function of a closed-loop automatic control system using the minimum criterion of the root-mean-square error. Avtom. i telem. 26 no.9:1524-1532 S '65.
(MIRA 18:10)

USSR/Farm Animals. Sheep and Goats. Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78752.

Author : Fedyunina, A.I., Pashchenko, G.
Title : The Precoce Sheep of the Moskalenskiy Sheep-Breeding Sovkhoz.
Inst :

Orig Pub: S. kh. Sibiri, 1957, No 12, 55-60.

Abstract: No abstract.

Card : 1/1

YANUSHEVICH, A.I.; FEDYANINA, T.F.

Periodic phenomena among birds in the Chuya Valley. Trudy Inst. zool.i paras.AN Kir.SSR no.7:51-66 '59. (MIRA 13:4)
(Chuya Valley--Birds)

YANUSHEVICH, A.I.; YAKOVLEVA, I.D.; FEDYANINA, T.F.

Materials on seasonal phenomena in the life of birds of the Chu Valley and the Issyk-Kul' Depression. Trudy Inst. zool. AN Kazakh. SSR 15:161-169 '61. (MIRA 14:7)

1. Institut zoologii i parazitologii AN Kirgizskoy SSR.
(Chu Valley--Birds--Habits)
(Issyk-Kul' Depression--Birds--Habits)

POSPELOV, A.G.; FEDYANINA, Yu.S.

New data on the lower Paleozoic stratigraphy of Gornaya Shoriya. Mat.po geol.Zap.Sib. no.61:86-89 '58. (MIRA 12:8)
(Gornaya Shoriya--Geology, Stratigraphic)

VINKMAN, M.K.; GINTSINGER, A.B.; POSPELOV, A.G.; POLETAYEVA, O.K.; YEGOROVA, L.I.; ROMANENKO, M.F.; FEDYANINA, Ye.S.; ASTASHKIN, V.A.; CHERNYSHEVA, S.V.; ROMANENKO, Ye.V.; ASKARINA, N.A.; BOYARINOV, A.S.; NADLER, Yu.S.; GOMELOV, G.F.

Scheme of the stratigraphy of Lower Cambrian and the lower part of Middle Cambrian sediments in the Altai-Sayan fold area. Trudy SNIIGGIMS no.24:23-34 '62. (MIRA 16:10)

FEDYANINA, Ye.S.

Trilobites of the Mras-Su series from the P'yankovskiy Spring (Gornaya Shoriya). Mat.po geol.Zap.Sib. no.63:30-40 '62. (MIRA 16:10)

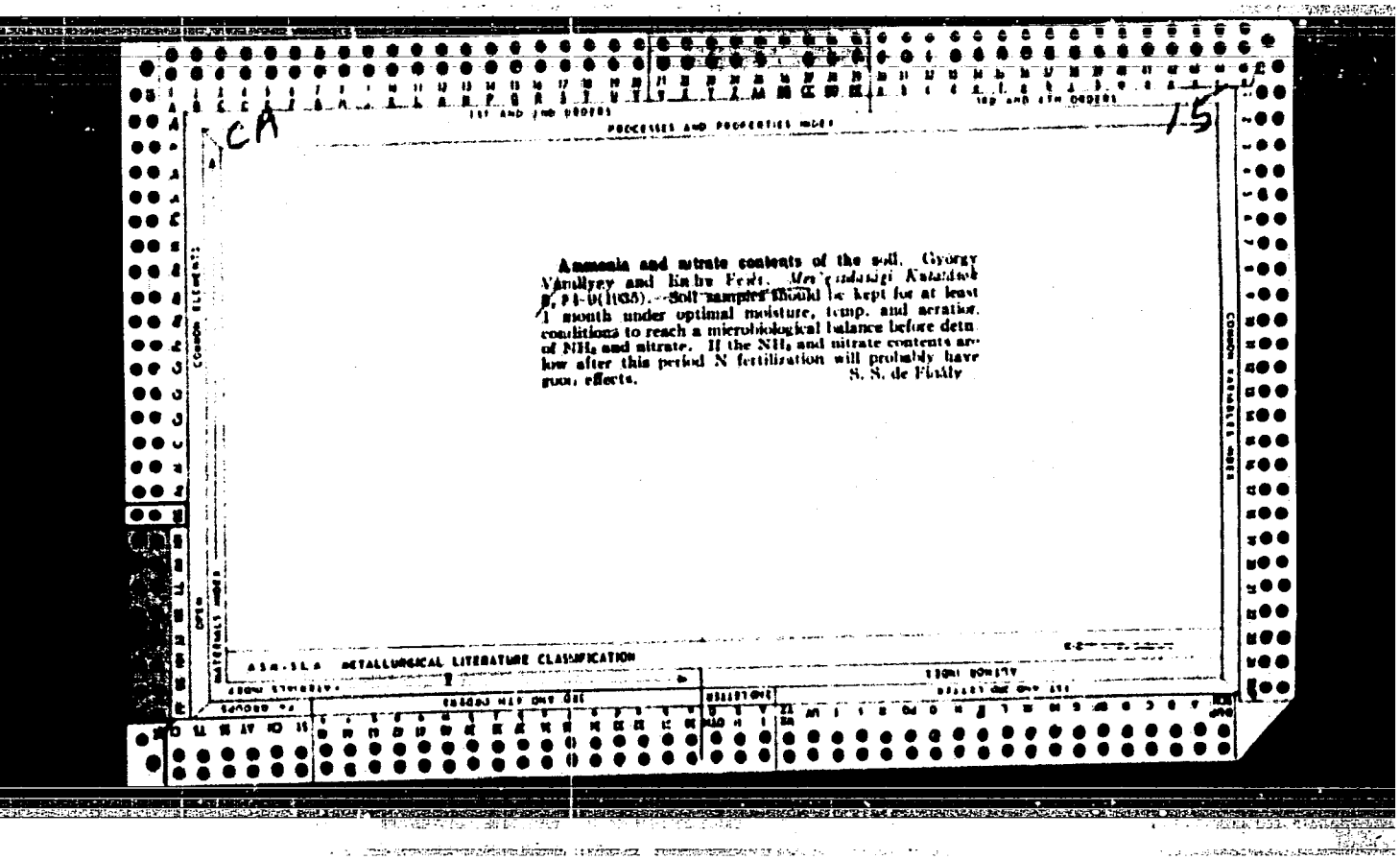
SINYAKOV, V.I.; FEDYANINA, Ye.S.

Lower Ordovician sediments in the Kaz iron-ore deposit of Gornaya Shoriya. Mat.po geol.Zap.Sib. no.63:41-55 '62. (MIRA 16:10)

FEDYAKOV, A. M.

"Loss of Stability in Medium and Low Elasticity Rods During Longitudinal Flexure." Cand Tech Sci, Odessa Polytechnic Inst, Odessa, 1955. (KL, No 13, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

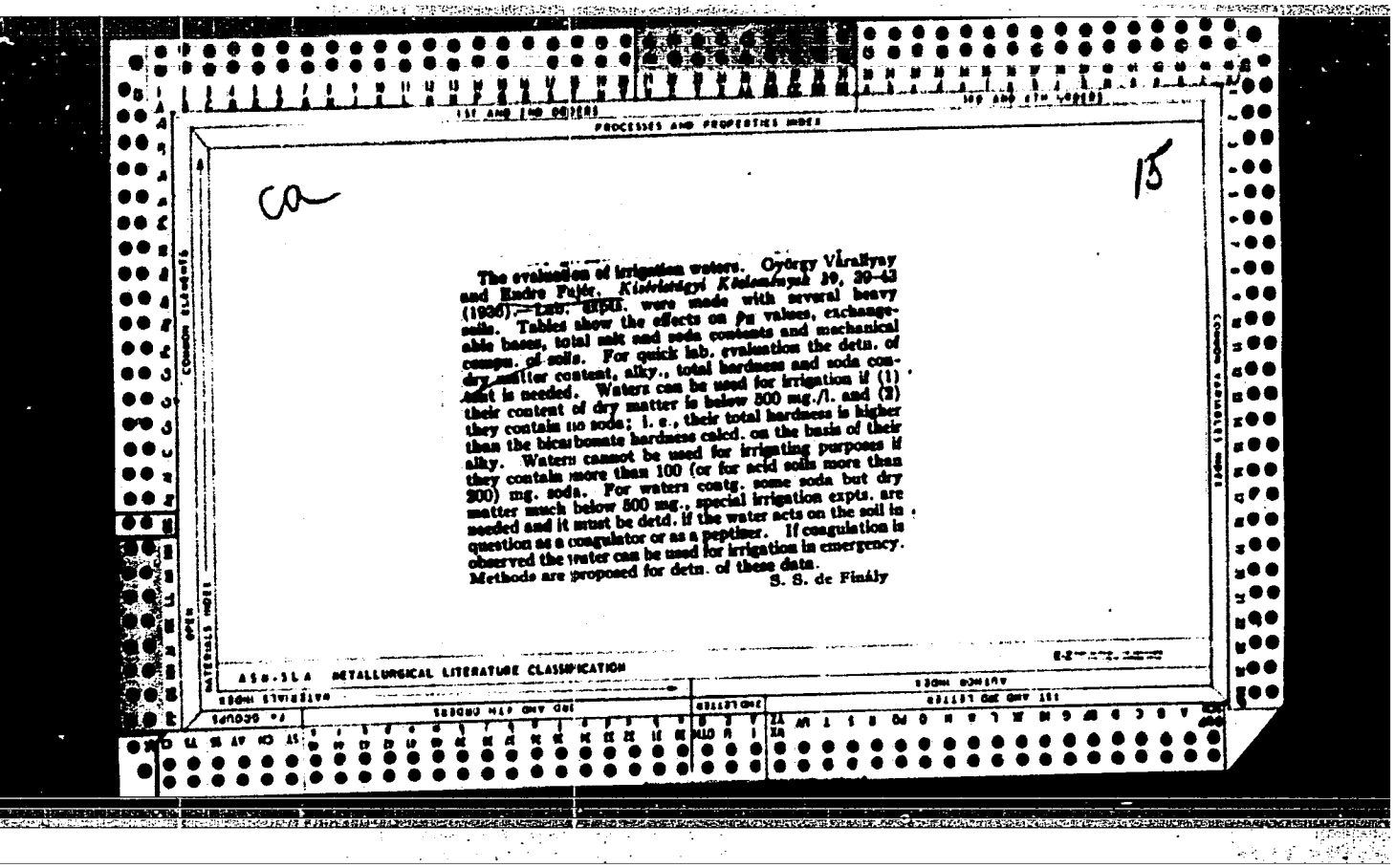


CA

15

Ammonia and nitrate contents of the soil. György Vámlyey and Endre Fesér. *Mezőgazdasági Kutatások* **8**, 91-9(1935).—Soil samples should be kept for at least 1 month under optimal moisture, temp. and aeration conditions to reach a microbiological balance before detn. of NH_3 and nitrate. If the NH_3 and nitrate contents are low after this period N fertilization will probably have good effects. S. S. de Hatly

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

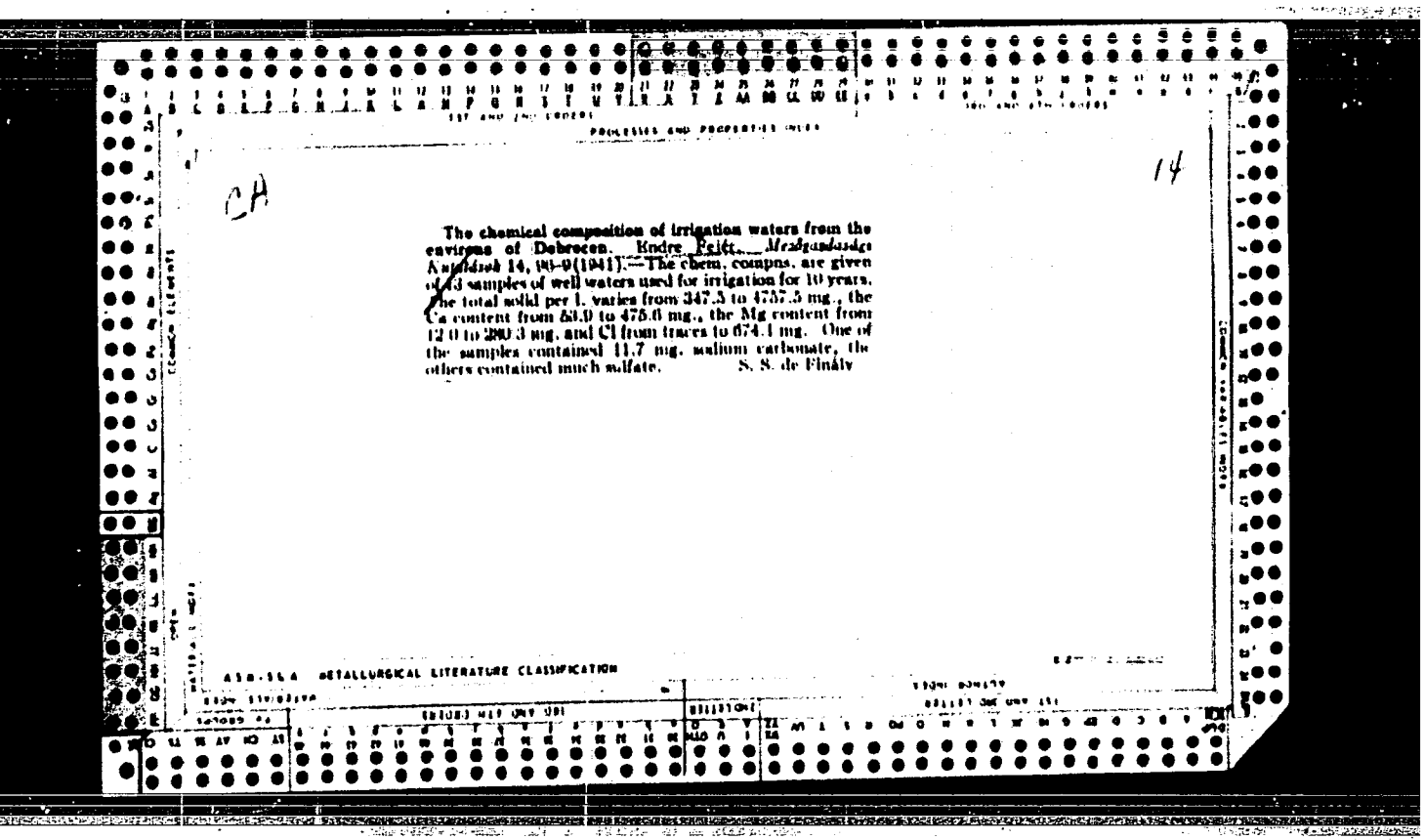
Ca

15

The evaluation of irrigation waters. György Virályay and Endre Fajér. *Kisérletügyi Közlemények* 39, 39–43 (1936).—Exp. data were made with several heavy soils. Tables show the effects on *p*H values, exchangeable bases, total salt and soda contents and mechanical compn. of soils. For quick lab. evaluation the detn. of dry matter content, alky., total hardness and soda content is needed. Waters can be used for irrigation if (1) their content of dry matter is below 500 mg./l. and (2) they contain no soda; i. e., their total hardness is higher than the bicarbonate hardness calcd. on the basis of their alky. Waters cannot be used for irrigating purposes if they contain more than 100 (or for acid soils more than 200) mg. soda. For waters contg. some soda but dry matter much below 500 mg., special irrigation expts. are needed and it must be detd. if the water acts on the soil in question as a coagulator or as a peptizer. If coagulation is observed the water can be used for irrigation in emergency. Methods are proposed for detn. of these data.

S. S. de Finály

A58-31A METALLURGICAL LITERATURE CLASSIFICATION



CA

14

The chemical composition of irrigation waters from the environs of Debrecen. Endre Feitl. *Mezőgazdasági Kutatások* 14, 183-9(1941).—The chem. compns. are given of 43 samples of well waters used for irrigation for 10 years. The total solid per l. varies from 347.5 to 4757.5 mg., the Ca content from 58.9 to 476.6 mg., the Mg content from 12.0 to 280.3 mg. and Cl from traces to 674.1 mg. One of the samples contained 11.7 mg. sodium carbonate, the others contained much sulfate. S. S. de Finály

A58-154 METALLURGICAL LITERATURE CLASSIFICATION

FÁJER, Endre, dr.

65th anniversary of Dr. Odon Rajka. Borgyogy. vener. szemle 9 no.5: 145-148 Sept. 55.

(BIOGRAPHIES,
Odon, Rajka)

FEJER, Endre, dr.

Investigations on specificity of Trichophyton allergy; diagnostic and therapeutic use of trichophytin. Borgyogy. vener. szemle 9 no.5: 149-155 Sept. 55.

1. Kozlemeny az Istvan-korhaz Gyermek-borosztalyarol (foorvos: Fejer Endre dr., az orvostudomanyok kandidatusa)
(RINGWORM,
diag. & ther. with trichophytin)

FEJER, Endre, dr.

Pathology and therapy of leukonychia mycotica. Borgyogy. vener. szemle 9 no.5:167-171 Sept. 55.

1. Koslemeny az istvan-korhaz Gyermek-borosztalyarol (foorvos: Fejer Endre dr., az orvostudomanyok kandidatusa)

(NAILS, diseases,
leukonychia mycotica, pathol. & ther.)
(FUNGUS DISEASES,
leukonychia mycotica, pathol, & ther.)

FEJER-KOSSEY, Olga

Studies of the alkaloid content in certain species and hybrids of Nicotiana. I. Separation and identification of tobacco alkaloids by thin-layer chromatography. Acta biol. Acad. sci. Hung. 15 no.2:251-256 '64

1. Institute of Genetics of the Hungarian Academy of Sciences, Budapest (Head: B. Gyorffy).

FEJES, Gabor

Storing granulated sugar in silos. Cukor 17 no.3:65-74 Mr '64.

1. Technical University of Heavy Industry, Miskolc.

FEJER, Ildiko

Field test of quadruple lenses with circular roll poles. ATOMKI kozl 4 no.3/4:177-182 D '62.

1. Kossuth Lajos Tudomanyegyetem Kiserleti Fizikai Intezete, Debrecen.

FEJER, Istvan, szakeloado

Remark about the questions of reutilization of opencasts and waste rock piles. Erdo 12 no.8:382-383 Ag '63.

1. Szentendrei Erdeszet.

I.

FEJER I.

A nyaki porcservek altal okozott fajdalmak vegetativ uton valo befolyasolasa; elozetes kozlemeny. [Autonomotropic analgesia in cervical disk herniation] Orv. hetil., Budap. 92:27 8 July 51 p. 877-9.

1. Internal Department (Head Physician--Dr. Imre Fejer), Bekescsaba County General Hospital (Director - Head Physician--Dr. Janos Fadicsky).
CLML Vol. 20, No. 10 Oct 1951

FEJER, Imre, dr.; FUZI, Miklos, dr.; ALFOLDY, Zoltan, dr.; KISZEL, Janos, dr.

Leptospirosis epidemic in Ujkigyos (Komit. Bekes) in the summer of 1952. Orv. hetil. 95 no.24:665-669 13 June 54.

1. A Bekescsabai Varosi Korhaz (igazgato: Budicsky Janos dr.) Belgyogyaszati Osztalyanak (foorvos: Fejer Imre dr.) es a Budapesti Orvostudomanyi Egyetem Mikrobiologiai Intezetenek (igazgato: Alfoldy Zoltan dr.) koslemenye

(LEPTOSPIROSIS, epidemiology
Hungary, 1952 in summer)

FEJER, Imre, dr.; SONKOLY, Kalman, dr.

Perforation of bronchial gumma into the esophagus. Orv. hetil. 95 no.52:1439-1440 26 Dec 54.

1. A Bekescsabai Varosi Korhaz (igazgato: Gombos Imre dr.) belgyogyaszati osztalyanak (foorvos: Fejer, Imre dr.) es Laboratoriumanak (foorvos: Sonkoly Kalman, dr.) kozlemenye.

(ESOPHAGUS, perf.
by bronchial gumma)
(BRONCHI, dis.
gumma, perf. into esophagus)
(SYPHILIS, manifest.
bronchial gumma, perf. into esophagus)

FEJER, Imre, dr.

Demonstration of splenic vein stenosis by splenoportography.
Magy. radiol. 8 no.1:40-42 Feb 56.

1. A Bekescsabai Varosi Tanacs Korhaza (igazgato:
Gomboz, Imre dr.) Belgyogyaszati osztalyanak (foorvos:
Fejer, Imre dr.) Kozlemenye.
(VEINS, PORTAL SYSTEM, stenosis
splenoportography. (Hun))

SZEGO,V.dr,; KASZA,L., dr.; SZABO,G., chim; FEJER,I., dr.

The blood transaminase alkaline phosphatase ratio in the differential diagnosis of hepatocellular and mechanical jaundice. Med. intern. 16 no.2:163-168 F'64.

1. Lucrare efectuata in Clinica de boli infectioase, I.M.F., Tg. Mures (director: prof.L.Kelemen).

FEJER, I.

Possibilities of utilizing geophysical measurement in coal-mining geological research. p. 528, (BANYASZATI LAPOK, Budapest, Hungary), Vol. 9, No. 10, Oct. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955. Uncl.

FEJER LADISLAU

SURNAME, Given Names

(1)

Country: Rumania

Academic Degrees:

Affiliation: Department of Surgical Anatomy-Medicine (Catedra de Anatomie-Medicina Operatorie), Tg. Mures; Department Head: Tiberiu MAROS, -Conf.- , and Department of Analytical Chemistry (Catedra de Chimie-Analitica), Tg. Mures; Department Head: Paul SOOS, -Conf.- of the Medico-Pharmaceutical Institute (Institutul Medico-Farmaceutic), Tg. Mures.

Source: Bucharest, Igiena, Vol IX, No 4, Sep-Oct 1961, pp 333-337.

Data: "A Stimulating Factor of Hepatitic Regeneration in a Coal Mine."

Authors:

MAROS, Tiberiu, -Conf.- (lecturer)
~~CSIKY, Nicolae, -Dr.-~~
~~FEJER~~, Ladislau, -Dr.-
KOVACS, Virginia V., -Dr.-
BLAZSEK, Agnota, -Chemist.-
KATONAI, Bela, -Dr.-

GPO 981643 157

Fejer, Sara

Structural status of Hungarian soils. Miklós Dvoracsek, Andor Klimes-Szmik, and Sára Fejér (Agrochem. Research Inst., Budapest). *Agrokémia és Talajtan* 1, 479-98(1952). —Water stability of soil aggregates detd. by the Savinov method, slightly modified by Dvoracsek, showed that the stability of soil aggregates under a natural vegetation is almost completely independent of soil type and of quality of natural vegetation. Hungarian soils under a natural vegetation contain on the av. 60-75% water-stable aggregates, except soils of virgin meadows formed on very light sand soils. Water stability of aggregates was best in topsoil in soils under a natural vegetation. Soils in continuous cropping showed strongly deteriorated structure. I. Finály

AG

(2)

(4)

Chem Abs v48
1-25-54
3 soils + 3 fertilizers

Influence of stickiness on the water stability of soil aggregates. Miklós Dvořáček, Andor Klimes-Szmik, and B. Sára Pelle (Agrochem. Research Inst., Budapest). *Agrokémia és Talajtan* 2, 17-26(1953).—The examn. of 24 soil samples representing the types most frequently occurring in Hungary, which in the original state contained nil-97.80% water-stable aggregates, was carried out by detg. the water stability of artificial aggregates prepd. from pulverized soil by the addn. of 60% water of the sticky point value by Arany's technique (*C.A.* 25, 2793). The cementing effect of org. substances irreversibly coagulated (responsible for the water stability of soil aggregates with a structure) can be eliminated by the prepn. of artificial aggregates. The cementing effect of mineral colloids was not observable when artificial aggregates were prepd. from steppe soils or from virgin soils of other type. I. P.

FEJER, T.

FEJER, T. - Background projection, projected scenery. p.129.
Vol. 2, no. 5, Oct. 1956.
KEP ES HANGTECHNIKA. Budapest, Hungary

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

FEJEREGYHAZI, Sandor, dr.

Brick-system devices and their standardization. Szabvany kozl 14 no.5:111-114 My '62.

FEJERNE KOSSEY, Olga

Investigation of the sulfur metabolism of corn(maize) roots. Agrokem talajtan 10 no.3:363-376 S '61.

1. Institute of Plant Physiology, Eotvos Lorand University, Budapest.

FEJERNE-KOSSEY, Olga

Change of amylase activity in the roots of germ plants. Biol kozl 10 no.1:43-50 '62.

1. Eotvos Lorand Tudomanyegyetem Novenyelettani Intezet, Budapest. Igazgato: Dr.Vilmos Frenyo egyetemi tanar.

FEJER DOMOKOSNE KOSSAY, Olga; BACHKAUSZ, Richard

Serologic examination of root proteins. Botan kozl 50 no.2:60-66 Jl '63.

1. Magyar Tudomanyos Akademia Genetikai Intezete, Budapest, II., Herman Otto ut 15 (for Fejer Domokosne). 2. Human Oltoanyagtermelo es Kutatointezet, Budapest, X., Szallas u.5/7 (for Backhausz).

FEJER, D.; PETRASOVICH, I.

The respiration of rice seedlings. Pt. 2. Acta bot Hung 9 no. 3/4 299-306 '63.

1. Institute of Plant Physiology, Lorand Eotvos University, Budapest.

ISZAGULJANC,V.N. [Isagulyants, V.I.]; TISKOVA, V.N. [Tishkova, V.N.]
GRUSEVENKO, I.A. [Grushevenko, I.A.]; FEJER, Domonkosne [Translator]

Preparing polyglycolether-type synthetic lubricants.
Kem tud kozl MTA 20 no.1:33-39 '63.

1. Leningradi Tudomanyegyetem (for Tishkova, Grushevenko).
2. Ormeny Tanacskoztarsasag Tudomanyos Akademiajanak rendes tagja (for Iszaguljanc.).

FEJER, Domokos

Plant biochemistry in Hungary. Botan kozl 50 no.2:51-60 Jl '63.

1. Eotvos Lorand Tudomanyegyetem Novenyelettani Intezete, Budapest, VIII., Muzeum korut 4/a.

FEJEREGYHAZI, Sandor, dr.; KUBL, Emil

Hexagon socket-head and cross-recessed screws. Szabvany kozl 13 no.8: 178-179 Ag '61.

NAGY, E.; FEJES, D.

Aureomycin treated gangrenous herpes zoster. Borgyogy. vener. szemle 6 no. 5:151-152 Oct 1952. (CLML 24:1)

1. Doctors. 2. Dermatological and Venereological Clinic (Director -- Prof. Dr. Lajos Szodoray), Debrecen University.

SZODORAY, Lajos, dr.; FEJES, Dezso, dr.

Two cases of Malherbe's calcified epithelioma. Borgyogy. vener. szemle 10 no.4:189-190 July 56.

1. A Debreceni Orvostud. Egyetem Bor- es Nemikortani Klinikaja (Igaz. Szodoray, Lajos, dr. egyet, tanar) kozl.
(CYSTS, pathol.
Malherbe's calcified epithelioma (Hun))

FEJES DEZSO

Largactil in the therapy of lichen ruber. Borgyogy. vener. szemle 11 no.4:154-156 Aug 57.

1. A debreceni Orvostudomanyegyetem Bor- es Nemikortani klinikaja (igazgato: Dr. Szodoray Lajos egyet. tanar) es a Hajdu--megyei II. Bor- es Nemibeteggondozo Intezet (vezeto: Dr. Fejes Dezso szakfoorvos) kozlemenye.

(PITYRIASIS RUBRA PILARIS, ther.
chlorpromazine (Hun))
(CHLORPROMAZINE, ther. use
pityriasis rubra pilaris (Hun))

FEJES, Dezso, dr.;BALOGH, Eva, dr.

Penicillin sensitivity in cases of mycosis of the legs. Borgyogy. vener. szemle 11 no.2-3:79-80 Apr-June 57.

1. A debreceni Orvostudomanyegyetemi Bor- es Nemikortani Klinikajanak (Igazgato: Szodoray Lajos dr. egyetemi tanar, az orvostudomanyok doktora) kozlemenye.

(SKIN DISEASES, ther.
fungus dis. of legs, prether. penicillin sensitivity tests (Hun))
(FUNGUS DISEASES, ther.
legs, prether. penicillin sensitivity tests (Hun))
(PENICILLIN, ther. use
fungus dis. of legs, prether. sensitivity tests (Hun))

FEJES, F.

Creasing cotton on scutchers, p. 248, MAGYAR TEXTILTECHNIKA (Textilipari Muszaki es Tudomanyos Egyesulet) Budapest, No. 7, July 1956.

SOURCE: EEAL LC Vol. 5, No. 11, November 1956

FEJES, F.; SELTI, P.

Use of the caulking funnel of Leningrad on a carding machine. p. 376.
(Magyar Textiltechnika, No. 10, October 1956. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. Uncl.

FEJES, Gabor

Centrifuges of continuous operation. Cukor 14 no.6:160-164 Je '61.

1. Elelmiszeripari Tudomanyos Intezet.

FEJES, Gabor

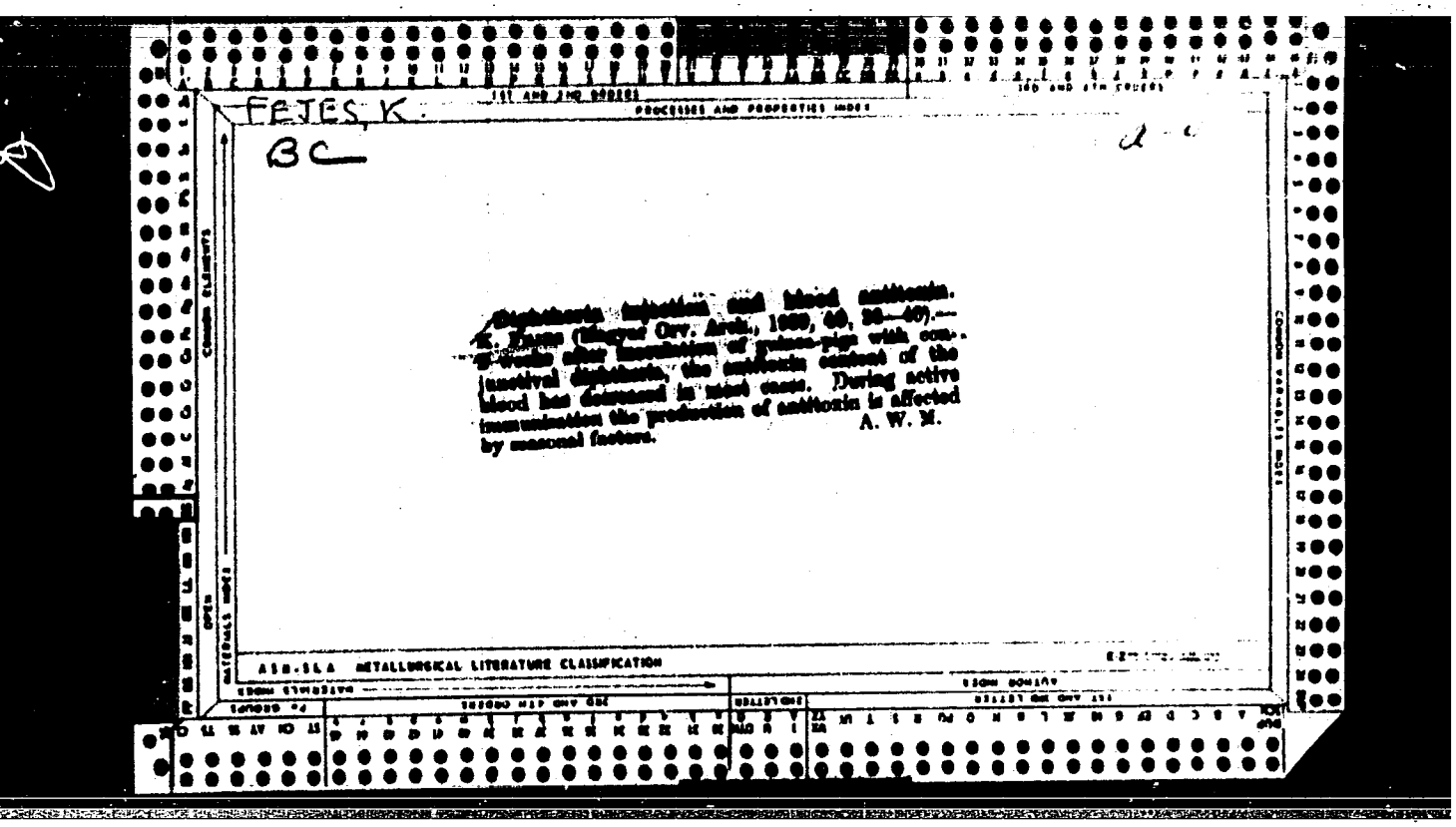
Examination of crystal destruction in continuous centrifuge.
Cukor 16 no.12:321-323 D '63.

FEJES I. A koraszulottek jelentosege a videki csecsemohalalozasban Significance of premature babies in the infant mortality in rural districts Nepegeszsegugy, Budapest 1950, 31/1 (23-27) Graphs 3

SO: Medical Microbiology & Hygiene Section IV, Vol. 3, No. 7-12

BAKTAI, Maria; FEJES, Istvan; HORVATH, Andras

Examination of the annual rings of the Pinuxylon Tarnociencis (Tuzson) Greguss. Foldt kozl 94 no.3:393-396 Jl-S '64.



FURSTNER, Jozsef, Dr.; FEJES, Karoly, Dr.; KRALOVANSZKY, Zoltan, Dr.

Clinical experiences with facial paralysis. Orv. hetil. 99 no.48: 1682-1684 30 Nov 58.

1. A Fovarosi Peterfy Sandor utcai Korhaz-rendelo (igazgato-foorvos: Galocsi Gyorgy dr.) Ful-orr-gege Osztalyanak (foorvos: Fleischmann Laszlo dr, az orvostudomanyok doktora) kozlemenye.

(FACIAL PARALYSIS
clin. aspects (Hun))

FEJES L. A kiuritese fertoz o betegsegekben The elimination of the germs in infections diseases Orvosok Lapja, Budapest 1947, 3/44 (1825-1830)

SO: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

FEJES, Laszlo, okleveles gepeszmernok

Remark about the article by Bendeguz Szabo. Ipari energia 4 no.3:71-72 Mr '63.

1. Orszagos Vizugyi Foigazgatosag.

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S/044/62/000/007/043/100
C111/C222

AUTHORS: Schay, G., Pethö, A., Fejes, P.

TITLE: Further remarks on the solution of the system of differential equations of a gaschromatographic model

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1962, 70, abstract 7B337. ("Acta chim. Acad. scient. hung.", 1960, 22, no. 3, 285-299)

TEXT: The processes in a variable gaschromatographic profile can be described by the continuity equations

$$\frac{\partial x}{\partial \tau} + \frac{\partial cx}{\partial z} + \frac{\partial a}{\partial \tau} - D\frac{\partial^2 x}{\partial z^2} = 0,$$

$$\frac{\partial (1-x)}{\partial \tau} + \frac{\partial c(1-x)}{\partial z} - D\frac{\partial^2 (1-x)}{\partial z^2} = 0,$$

where z -- local coordinate, τ -- time, $x(z,\tau)$ and $a(z,\tau)$ -- concentrations in the movable and in the immovable phase, $c(z,\tau)$ -- ve-

Card 1/2

locity, D -- diffusion coefficient. In the first part of the paper the authors consider instationary solutions under absent diffusion and under linear kinetics, i.e. it is put D = 0,

$$\frac{\partial a}{\partial \tau} = k(qx - a) \quad ,$$

where k -- constant velocity of the desorption from the immovable phase, q the constant ratio of the sorption components in the state of equilibrium of the two phases. It is shown that explicit solutions exist only for $x_o(\tau) = 1$, where $x_o(\tau) = x(0, \tau)$. If the boundary and initial conditions are arbitrary, then one can obtain an explicit form of the solutions in the domain before the "peak" and in the "peak". In the second part stationary solutions are considered ; a criterion for the realizability of the sorption or desorption front is obtained.

[Abstracter's note : Complete translation.]

Card 2/2

FEJES, P.

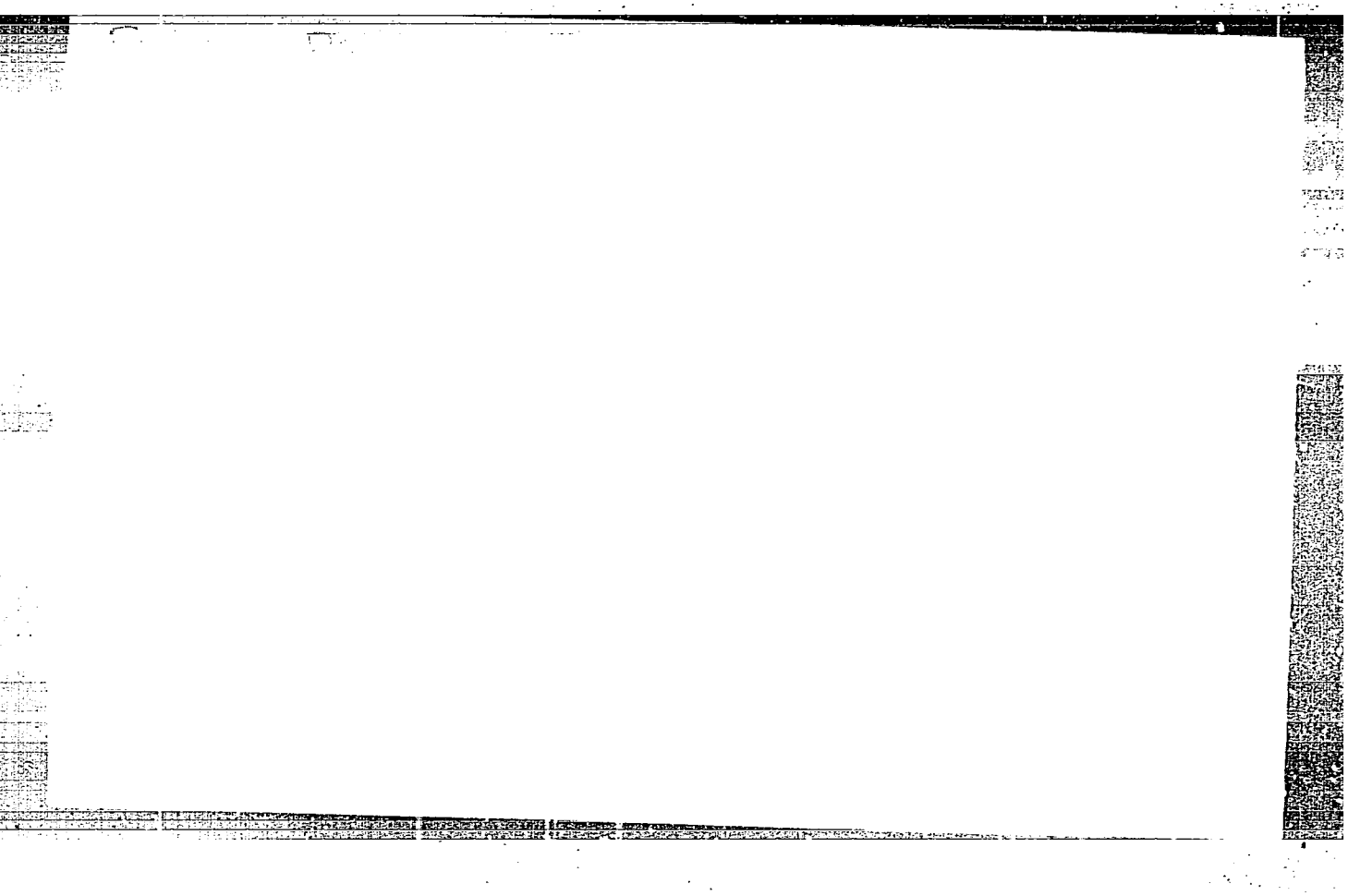
"Gas chromathography abstracts, 1960", edited by C.E.M. Knapman. Reviewed by P. Fejes. Acta chimica Hung 37 no.3:349 '63.

FEJES, P.

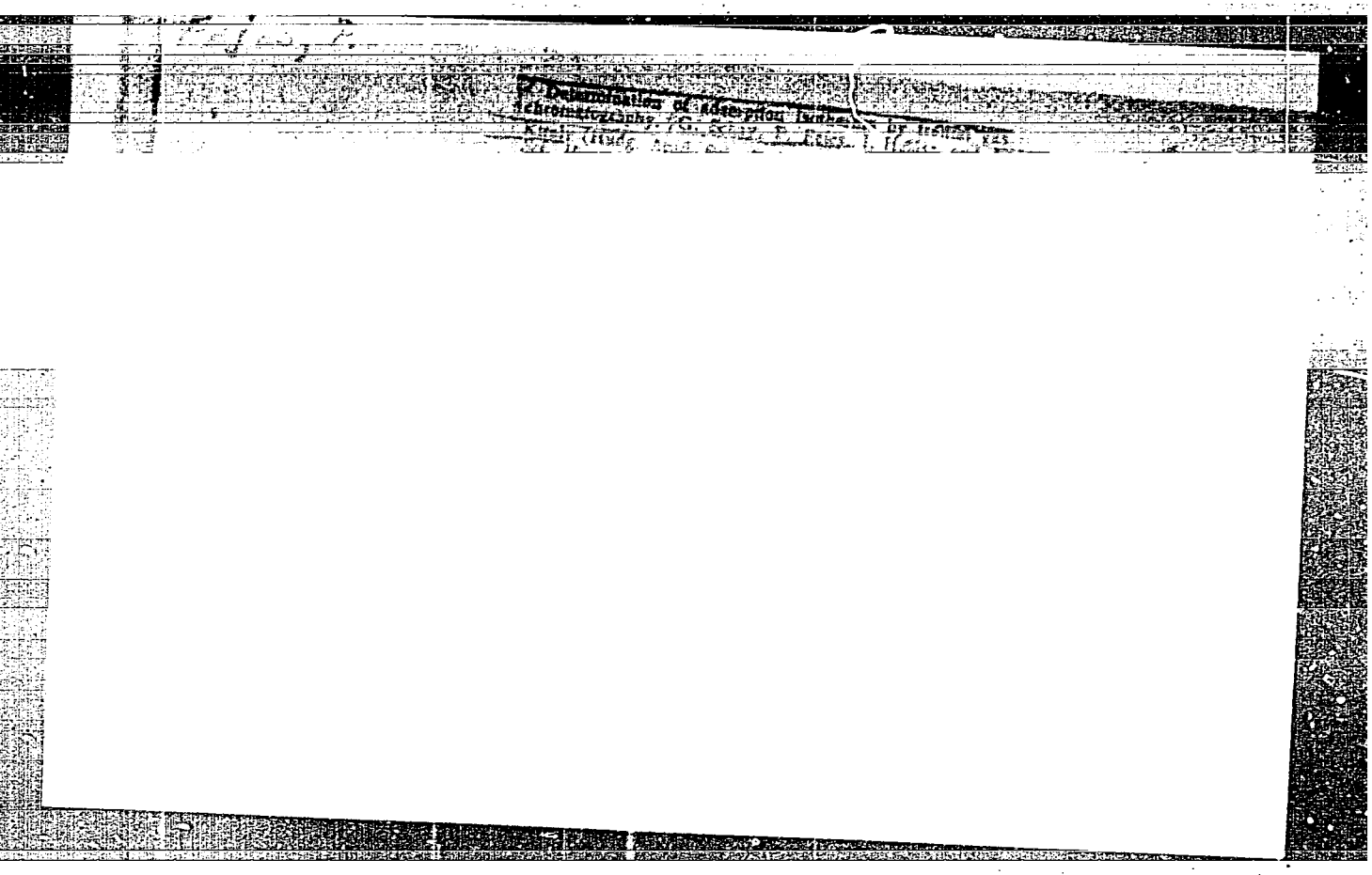
Fejes, P.; Gardos, Gy.; Kallos, D.

"Synthesis and Examination of Additional Materials to Reduce the Freezing Point." p. 346 (Magyar Kemikusol Lapja. Vol. 8, no. 12, Dec. 1953 Budapest)

SO: Monthly List of East European Accessions. Vol 3 No 6 Library of Congress, Jun 54, Uncl.



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000412810



HUNGARY/Atomic and Molecular Physics - Gases D-7

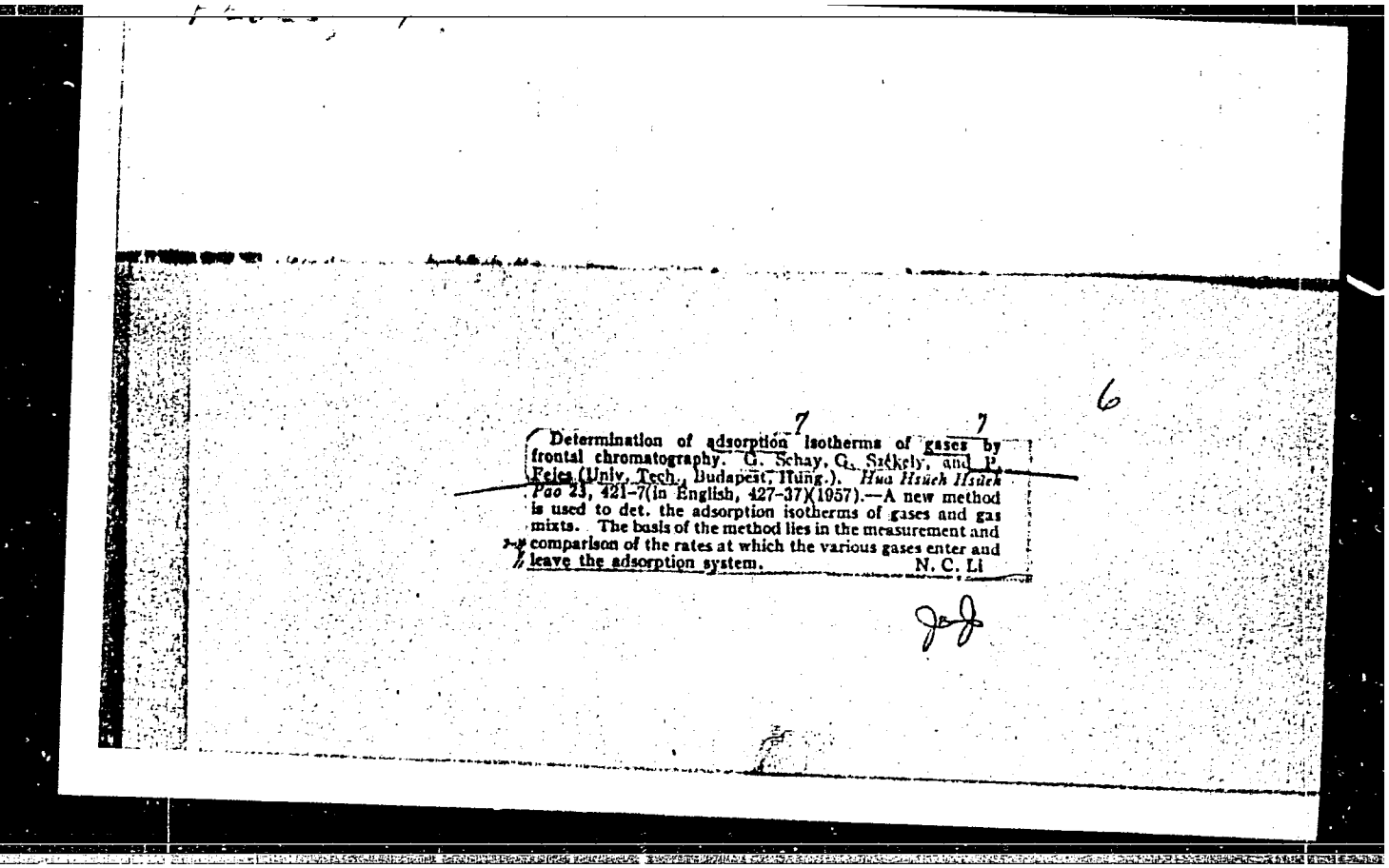
Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 20223

Author : Schay G., Fejes P., Szathmary J.
Inst : Hungarian Academy of Sciences, Budapest, Hungary - Cent. Res. Inst. for Chemistry
Title : Studies on the Adsorption of Gas Mixtures. I. Statistical Theory of Physical Adsorptionof the Langmuir-Type in Multi-component Systems.

Orig Pub : Acta chim. Acad. sci. hung., 1957, 12, No 3-4, 299-307

Abstract : The adsorption theory of Schay (Schay G., Acta chem. Hung., ,953, 3, 511), based on representatiob of a monomolecular layer of adsorbed substance in the form of a two-dimensional gas, is generalized to include the case of a multi-component gas mixture. The Langmuir formula for adsorption is not suitable at large surface densities of the adsorbed gases. The difference in the asymptotic values of the number of adsorbed molecules of each component is obtained automatically from the fact that a count is taken of the effective dimension of the molecule, which is different for different gases. The case of two-component mixture is analyzed in detail.

Card : 1/1



6

Determination of adsorption isotherms of gases by frontal chromatography. G. Schay, G. Szekely, and P. Feles (Univ. Tech., Budapest, Hung.). *Hua Hsueh Hsueh Pao* 23, 421-7(in English, 427-37)(1957).—A new method is used to det. the adsorption isotherms of gases and gas mixts. The basis of the method lies in the measurement and comparison of the rates at which the various gases enter and leave the adsorption system. N. C. Li

HUNGARY/Physical Chemistry - Surface Phenomena, Adsorption, Chromatography, Ion Interchange. B-13

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4005.

Author : Geza Schay, Pal Fejes, Istvan Halasz, Janos Kiraly.
Inst :
Title : Determination of Adsorption Isotherms by Gas Chromatographic Method.

Orig Pub: Magyar kem. folyoirat, 1957, 63, No 4-5, 143-149.

Abstract: The isotherms of CO_2 adsorption on activated carbon at 20 to 60° were taken down by the earlier described (RZh-Khim, 1955, 51625) dynamic gas-chromatographic method. The comparison of the isotherms obtained by this method with data obtained by the volumetric method shows that the results are practically identic, if physical adsorption was in question and chromatography was carried out at a low speed. Thus, the possibility of determining equi-

Card : 1/2

-13-

HUNGARY/Physical Chemistry - Surface Phenomena, Adsorption, Chromatography, Ion Interchange. B-13

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4005.

librium relations at adsorption under the conditions of dynamic arrangement of the experiment is shown.

Card : 2/2

-14-

FEJES, P.; KALLO, D.; ENGELHARDT, J.

Preparation of hydrocarbons with small carbon atomic number for adsorption. p.132

MAGYAR KEMIAI FOLYOIRAT. Budapest, Hungary. Vol. 65, no. 4, Apr. 1959

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959

Uncl.

FEJES, I

Simplified method for determination of the specific surfaces of porous adsorbents. III. Isotherms of furan at 23°; surface requirements of furan, butane, and isobutane. P. Fejes, J. Király, and G. Schay (Ungar. Akad. Wiss., Budapest, Hung.). *Z. anorg. u. allgem. Chem.* 300, 72-80 (1959); cf. *C.A.* 51, 7102c.—The simplified method proposed in the earlier paper for calcn. of specific surfaces was used to calc. values from isothermal measurements of the adsorption of furan at 23° on 8 different adsorbents. The values agree to within 4% with those calcd. by the B.E.T. method. The mol. space requirements for butane and isobutane at 0° and for furan at 23°, detd. by comparison with values for N at 90°K., are 53, 54, and 42 sq. A., resp. The magnitudes of these values suggest a preferred orientation on the adsorbent surfaces. Richard H. Jaquith

FEJES, Pal; KALLO, Denes; ENGELHARDT, Jozsef

Preparation of hydrocarbons with low atomic number for adsorption. Magy kem folyoir 65 no.4:132-138 Ap '54.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete, Budapest.

FEJES, Pal, a kemiai tudomanyok kandidatusa; SCHAY, Geza, akademikus

Pore diffusion and catalytic activity. Kem tud kozl MTA 13 no.2: 179-199 '60. (EEAI 9:8)
(Diffusion) (Catalysts)

FEJES, P.

Distr: 4F3a(VIII)

5
I ∓ P(c)
1

Further contributions to the solution of the system of differential equations of a gas chromatographic model. G. Schay, A. Pethő, and P. Fejes. (Hungarian Akad. Sci., Budapest). *Acta Chim. Acad. Sci. Hung.* 22, 285–99 (1960)(in German).—A math. model, considering the effect of the sorption process on the flow rate in gas chromatography, is discussed. Neglecting the kinetics of sorption, the processes are described by the following equations: (1) $x_\tau + (cx)_z + a_\tau - Dx_{zz} = 0$ and (2) $a_\tau + c_z = 0$, in which z is the local coördinate, τ is the time, $x(z,\tau)$ and $a(z,\tau)$ are the concns. in the flowing and fixed phase, resp. (in the case of a pure gas $x = 1$), $c(z,\tau)$ is the velocity, and D is the diffusion const. Possible solutions of the above equations are explored for the case $D = 0$ and for the assumed linear sorption kinetics, $a_\tau = k(gx - a)$ with the boundary conditions: $x(0,\tau) = x_0(\tau)$, $x(z,0) = x^0$, $a(z,0) = gx^0$, and $c(0,\tau) = c_0$. Only the case of $x_0(\tau) = 1$ gave a complete explicit solution. Explicit solns. also were derived with the general boundary equations at the head and in the front of the head of the introduced gas phase. Steady-state solutions of equations (1) and (2), and criteria were established which are useful in deciding whether or not a sorption or desorption front may become steady with a given type of isotherm.

Lloyd Kahn

FEJES, Pal

A new method of evaluation for determining the apparent velocity constant of desorption (elution) performed by a medium of flow. Veszpremi vegyip egy kozl. 4 no.4:309-310 '60

Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete, Budapest.

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KIRALY, Janos (Budapest, XIV., Hungaria korut 114); FEJES, Pal (Budapest, XIV., Hungaria korut 114); TUDOS, Ferenc (Budapest, XIV., Hungaria korut 114); AZORI, Maria (Budapest, XIV., Hungaria korut 114)

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1. Central Research Institute for Chemistry, Hungarian Academy of Sciences, Budapest. 2. Editorial board member, "Acta Chimica Academiae Scientiarum Hungaricae" (for Tudos).

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"Gas Chromatography Abstracts", 1959. Reviewed by P. Fejes. Acta chimica Hung 29 no.4:479 '61.

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FEJES, Pal, dr. (Budapest, II., Pusztaszeri ut 59/67); FROMM-CZARAN, E. (Mrs) (Budapest, II., Pusztaszeri ut 59/67); SCHAY, Geza, prof., dr. (Budapest, II., Pusztaszeri ut 59/67)

Newer investigations in frontal gas chromatography considering the variations of flow rate during the sorption. I. Acta chimica Hung 33 no.1:87-105 '62.

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Role of the pore diffusion inhibition in first-order triangular reactions reversible in all directions. Pt. 1. Magy kem folyoir 70 no. 1: 7-16 Ja '64.

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L 42282-66 EWT(j) RM

ACC NR: AT6033595 SOURCE CODE: HU/2502/66/047/001/0013/0022

AUTHOR: Beyer, Hermann--Beyer, Kh. (Doctor; Budapest); Fejes, Pal--Feyesh, P. (Doctor); Schay, Geza--Shay, G. (Professor; Doctor); Varga, Karoly

25
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ORG: Central Research Institute for Chemistry, MTA, Budapest

TITLE: New investigations in the field of frontal gas chromatography taking into account the flow rate during sorption. Part 3: Determination of theoretical plate height values with the aid of frontal gas chromatography [This paper was presented at the All-Union Conference on Gas Chromatography in Moscow in May 1964.]

SOURCE: Academia scientiarum hungaricae. Acta chemica, v. 47, no. 1, 1966, 13-22

TOPIC TAGS: gas chromatography, sorption

ABSTRACT: An expression was derived for the characterization of the height of the theoretical plate for the frontal variant in gas chromatography and the values obtained with the aid of this expression were compared with data obtained by means of elution chromatography. Orig. art. has: 3 figures and 11 formulas. [Orig. art. in German] [JPRS: 34,669]

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L 45343-66 EWP(1) IJP(c) RM

ACC NR: AT6033590 SOURCE CODE: HU/2502/66/047/001/0023/0035

AUTHOR: Varga, Karoly (Budapest); Fejes, Pal--Feyesh, P. (Doctor; Budapest); Beyer, Hermann--Beyer, Kh. (Doctor; Budapest)

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ORG: Central Research Institute for Chemistry, MTA, Budapest

TITLE: New investigations in the field of frontal gas chromatography taking into account the flow rate during sorption. Part 4: Evaluation of chromatographic partition columns on the basis of transport rates determined by frontal chromatography and diffusion constants

SOURCE: Academia scientiarum hungaricae. Acta chemica, v. 47, no. 1, 1966, 23-35

TOPIC TAGS: gas chromatography, sorption

ABSTRACT: Methods for the determination of the transport rate and diffusion constants of gas-chromatographic partition columns were described and means for evaluating such columns as to their performance characteristics other than selectivity on the basis of these data were developed. The data obtained on various packed columns were presented and discussed in detail. Orig. art. has: 1 figure, 7 formulas and 1 table. [Orig. art. in German] [JPRS: 34,669]

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